UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,609	12/28/2000	Sam Mazza	P 271394 P9435	4809

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EXAMINER
ZHEN, LI B

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *19 December 2005*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *12/19/05*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 10 are pending in the current application.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission (Information Disclosure Statement) filed on December 19, 2005 has been entered.

3.   All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information Disclosure Statement

4.   The information disclosure statement (IDS) submitted on December 19, 2005 is
in compliance with the provisions of 37 CFR 1.97. Accordingly, the information
disclosure statement was considered by the examiner.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1 – 4 and 7 – 10 are rejected under 35 U.S.C. 103(a) as being
unpatentable over U.S. Patent No. 5,860,072 to Schofield in view of U.S. Patent
No. 6,321,273 to Schofield [hereinafter referred to as Schofield273].**

7.   As to claim 1, Schofield teaches the invention substantially including a method
comprising:

        obtaining a plurality of attribute specifications, each of said attribute
specifications including an attribute name and an attribute type [e.g. col. 1 line 61; col. 2
line 1-12]; and

        generating a permutation of said plurality of attribute specifications [e.g. col. 2
line 13-23; col. 3 line 14-21].

8.   Although Schofield teaches the invention substantially, Schofield does not
specifically teach identifying an ordering of the attribute specifications and updating the
attribute specifications according to the identified order.

        However, Schofield273 teaches a method for processing a object call between a
client computer system and a server computer system [col. 3, lines 49 – 57], identifying
an ordering of the attribute specifications [entries 402 within the parameterized vector
400 are arranged in a predetermined canonical order; col. 7, lines 22 – 35] and updating
the attribute specifications according to the identified order [mapping is a one-to-one

correspondence between the canonical ordering in parameterized vector 400 and the parameter order required....each entry 502 in the parameter area 500 is initialized to contain an object pointed to...by the corresponding entry 402 in the parameterized vector 400. In this fashion, the parameter area becomes a new parameter list, arranged in the correct parameter order for the server system 100'; col. 7, line 55 - col. 8, line 13].

9.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of identifying an ordering of the attribute specifications and updating the attribute specifications according to the identified order as taught by Schofield273 to the invention of Schofield because this provides a methodology for passing parameter lists, such as parameter list 200, between systems, such as client 100 and server 100' in such a way that the parameters 202 are correctly arranged for both client 100 and server 100' [col. 7, lines 1 - 5 of Schofield273].

10.   As to claim 2, Schofield teaches a method generating further comprises:

grouping said plurality of attribute specifications into type groups, each of said type groups containing at least one attribute of same said attribute type [e.g. col. 9 line 43-53];

associating each of said type groups with a corresponding type size [e.g. col. 9 line 30-38]; and

sorting said type groups in an descending order based on the value of said corresponding type size [e.g. col. 12 line 38-41].

11.   As to claim 3, Schofield teaches a method associating further comprises:

determining said corresponding type size for a type group [e.g. col. 11 line 14-27]; and

assigning said corresponding type size to said type group [e.g. col. 12 line 65].

12.   As to claim 4, Schofield teaches a method determining includes:

obtaining said corresponding type size from a set of pre-defined primitive type sizes if the attribute type of said type group is a primitive type [e.g. col. 12 line 65];

extracting a plurality of internal attribute specifications from said type group if the attribute type of said type group is a non-primitive type, each of said internal attribute specifications including an attribute name and an attribute type [e.g. col. 14 line 33-36]; and

generating a permutation of said plurality of internal attribute specifications [e.g. col. 11 line 14-37]; and

computing said corresponding type size of said type group by counting the total number of bytes occupied by said permutation of said plurality of internal attribute specifications [e.g. col. 12 line 42-45].

13.   As to claim 7, Schofield as modified teaches a medium having information recorded thereon, such that when said information is read and executed by a computer, the computer is caused to:

obtain a plurality of attribute specifications, each of said attribute specifications including an attribute name and an attribute type [e.g. col. 14 line 33-36; col. 15 line 6-9 of Schofield];

identifying an ordering of the attribute specifications [entries 402 within the parameterized vector 400 are arranged in a predetermined canonical order; col. 7, lines 22 – 35 of Schofield273]; and

updating the attribute specifications according to the identified order [mapping is a one-to-one correspondence between the canonical ordering in parameterized vector 400 and the parameter order required....each entry 502 in the parameter area 500 is initialized to contain an object pointed to...by the corresponding entry 402 in the parameterized vector 400. In this fashion, the parameter area becomes a new parameter list, arranged in the correct parameter order for the server system 100'; col. 7, line 55 - col. 8, line 13 of Schofield273]

generate a permutation of said plurality of attribute specifications [e.g. col. 11 line 14-37 of Schofield].

14.   As to claim 8, Schofield teaches that information recorded on said medium
further causes said computer to:

group said plurality of attribute specifications into type groups, each of said type
groups containing at least one attribute of same said attribute type [e.g. col. 9 line 43-
53];

associate each of said type groups with a corresponding type size [e.g. col. 9 line
30-38]; and

sort said type groups in a descending order based on the value of said
corresponding type size [e.g. col. 12 line 38-41].

15.   As to claim 9, Schofield teaches that information recorded on said medium
further causes said computer to:

determine said corresponding type size for a type group [e.g. col. 11 line 14-27];
and

assign said corresponding type size to said type group [e.g. col. 12 line 65].

16.   As to claim 10, Schofield teaches that information recorded on said medium
further causes said computer to:

obtain said corresponding type size from a set of pre-defined primitive type sizes
if the attribute type of said type group is a primitive type [e.g. col. 12 line 65];

extract a plurality of internal attribute specifications from said type group if the
attribute type of said type group is a non-primitive type, each of said internal attribute
specifications including an attribute name and an attribute type [e.g. col. 14 line 33-36];
and

generate a permutation of said plurality of internal attribute specifications [e.g.
col. 11 line 14-37]; and

compute said corresponding type size of said type group by counting the total
number of bytes occupied by said permutation of said plurality of internal attribute
specifications [e.g. col. 12 line 42-45].

17.   **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield and Schofield273 further in view of "Customizing IDL Mappings and ORB Protocols" [hereinafter referred to as Welling].**

18.   As to claim 5, Schofield as modified does not specifically show a set of pre-defined primitive type sizes includes the type size definition of C++.

However, Welling teaches the mapping data type between IDL and C++ programming language [Customizing IDL Mapping and ORB Protocols, page 397-398].

19.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Schofield as modified with Welling because this provides an automated process for mapping from IDL to C++ programming language and offer portable and interoperable CORBA compliant application code with different ORB implementations [section 2, p. 397 of Welling].

20.   **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield and Schofield273 further in view of "Java 2 Distributed Object Middleware Performance Analysis and Optimization" [hereinafter referred to as Juric].**

21.   As to claim 6, Schofield as modified does not specifically show a set of pre-defined primitive type sizes include the type size definition of Java.

However, Juric teaches the data type mapping between the primitive type in Java programming language and CORBA IDL [Java2 Distributed Object Middleware Performance Analysis and Optimization, page 31-33].

22.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Schofield as modified with Juric because this enables the use of RMI over the IIOP protocol and makes it CORBA compliant [last paragraph of p. 39 – first paragraph of p. 40 of Juric].

Conclusion

23.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONTACT INFORMATION

24.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

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